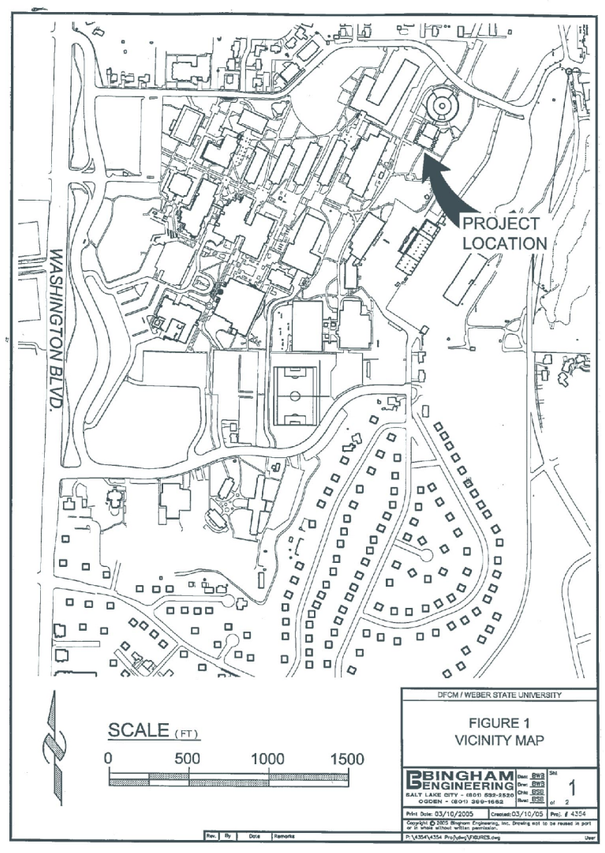

VICINTY PLAN

Weber State University

Science Lab Building Renovation

DRAWING INDEX

G001	COVER SHEET/DRAWING INDEX
A101	TYPICAL FLOOR PLAN
A201	WEST ELEVATION
A202	EAST ELEVATION
A203	SOUTH ELEVATION
A401	ENLARGED EXISTING SOUTH ENTRANCE
A402	ENLARGED DEMOLITION
A403	ENLARGED PLAN
A501	DETAILS
S001	STRUCTURAL GENERAL NOTES
S002	STRUCTURAL GENERAL NOTES
S003	STRUCTURAL GENERAL NOTES
S101	SOUTH ENTRANCE FOOTING AND FDTN
S102	FOOTING SCHEDULE
S501	STRUCTURAL DETAILS
S502	STRUCTURAL DETAILS

State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

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WEBER STATE UNIVERSITY
SCIENCE LAB BUILDING RENOVATIONS
OGDEN, UTAH

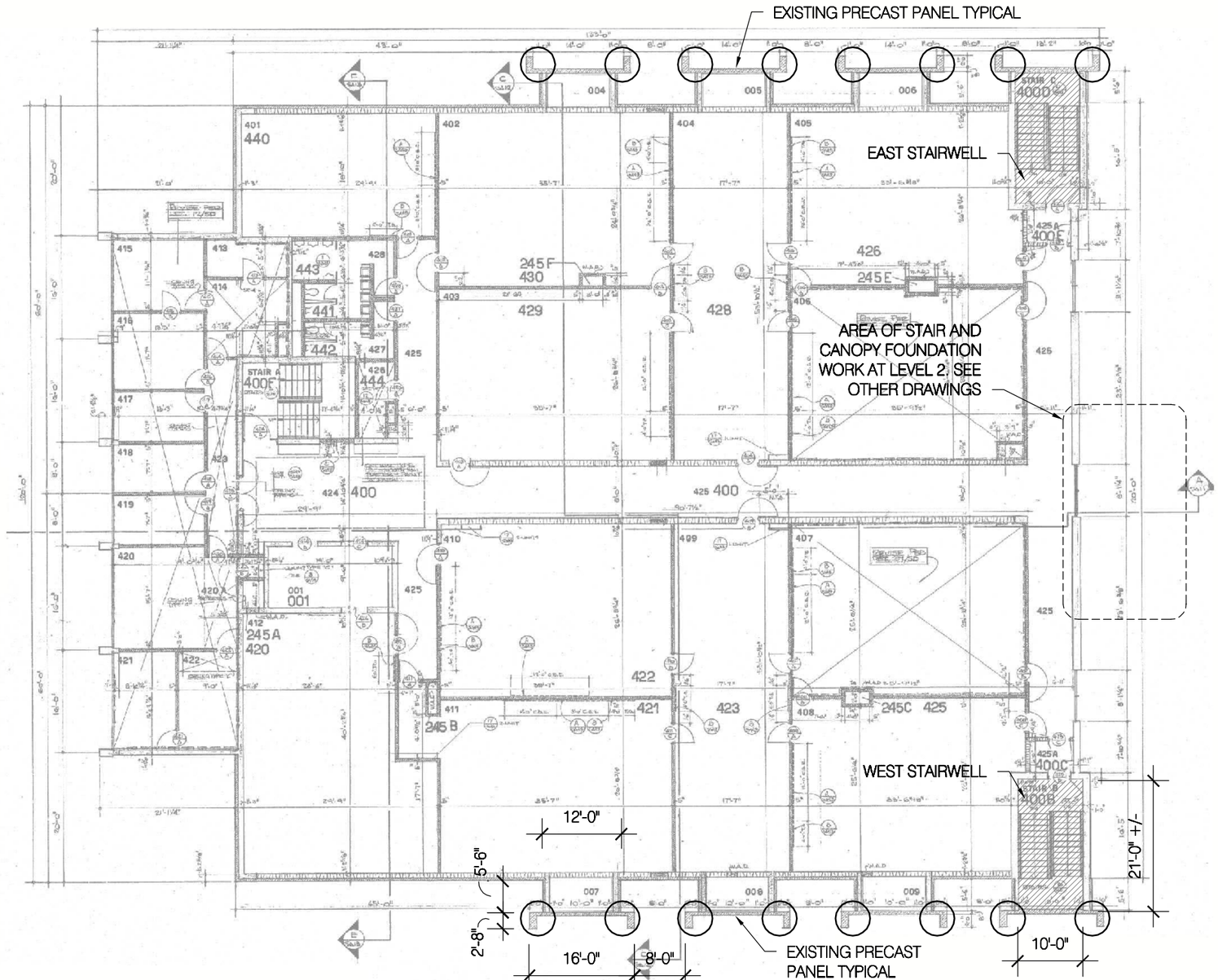
JOB NO. 05031
DATE April 28th 2005
SCALE NTS
SHEET NO. G101

GENERAL NOTES

1. CLEAN AND PRIME EXPOSED CORRODED STRUCTURAL STEEL CONNECTORS AND LEDGER ANGLES IN EAST AND WEST STAIRWELLS WITH ZINC-RICH URETHANE PRIMER.

2. SURVEY EAST AND WEST STAIRWELLS IN THEIR ENTIRETY FOR AREAS OF WATER DAMAGE AND FRIABLE PLASTER. REMOVE LOOSE AND CRUMBLING PLASTER. PATCH AND REPAIR ALL OF THESE AREAS AND REPAINT EAST AND WEST STAIRWELLS IN THEIR ENTIRETY INCLUDING STAIRWELL WALLS, AND CEILINGINGS AND UNDERSIDE AND SIDES OF STAIR STRUCTURE AND LANDINGS. STAIR TREADS TOP SURFACES AND RISERS SHALL NOT BE PAINTED. ALSO EXCLUDE HANDRAILS, GUARDRAILS, DOORS, AND FRAMES.

3. IN BOTH STAIRWELLS WHERE MOISTURE HAS INFILTRATED THROUGH BASEMENT WALLS, REMOVE All FRIABLE PLASTER, PREPARE AND TREAT CONCRETE WITH CRYSTALLINE SEALER AS PER MANUFACTURER'S RECOMMENDATIONS. REPAIR PLASTER FINISHES AND REPAINT.



CIRCLES DENOTE PANEL REATTACHEMENT DETAIL LOCATIONS AND LOCATION OF SEALANT BETWEEN PRECAST AND MASONRY. RE: A501

Typical Floor Plan

NTS

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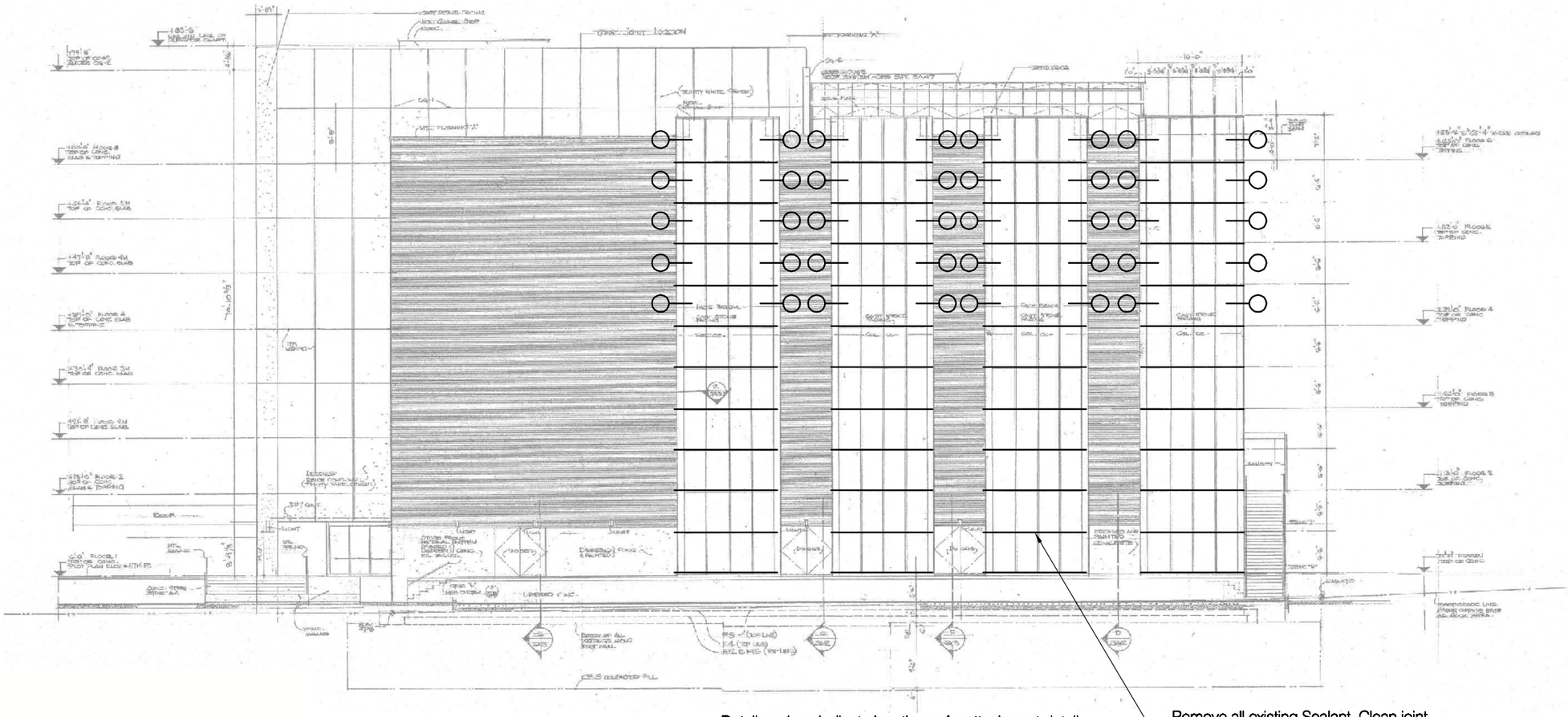
JOB NO. 05031
DATE April 28th 2005
SCALE NTS
SHEET NO. A101



West Elevation

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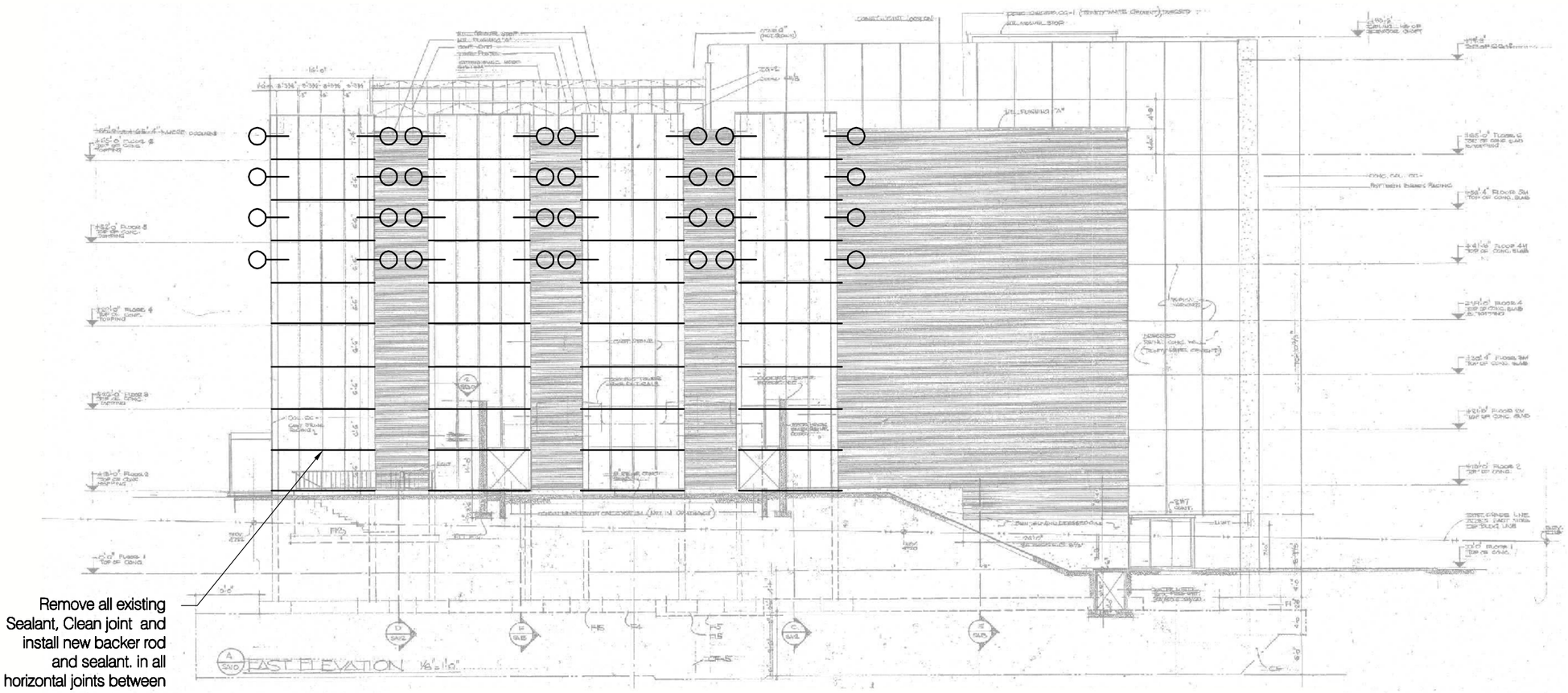
JOB NO. 05081
DATE April 28th 2005
SCALE NTS
SHEET NO. A201



Remove all existing Sealant, Clean joint and install new backer rod and sealant. in all horizontal joints between pre-cast panels.

Install sealant at all vertical joints between precast and masonry typical.

Detail markers indicate locations of reattachment detail.

East Elevation

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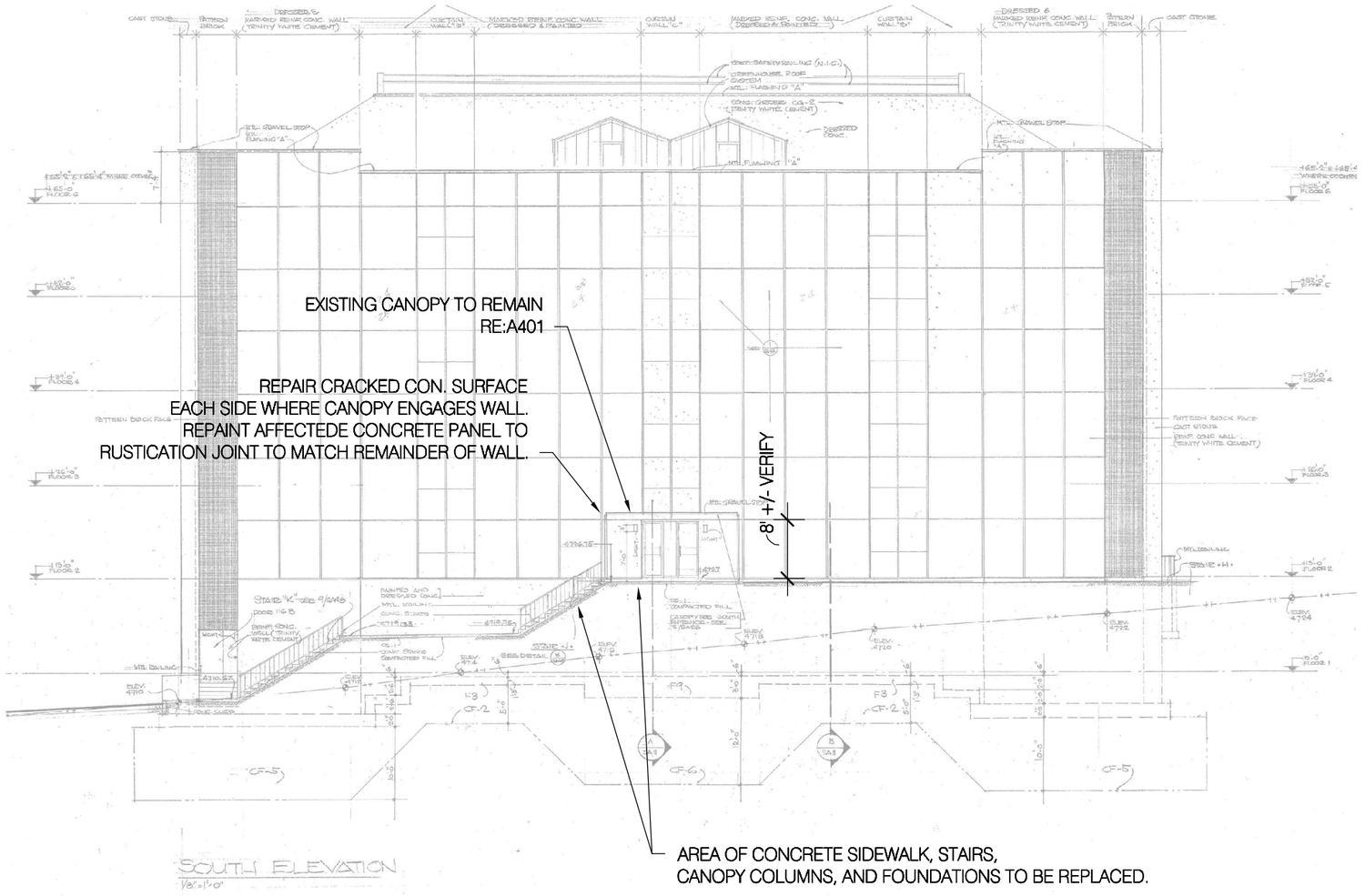
JOB NO. 05031
DATE April 28th 2005
SCALE NTS
SHEET NO. A202



SOUTH ELEVATION
1/8"=1'-0"

South Elevation

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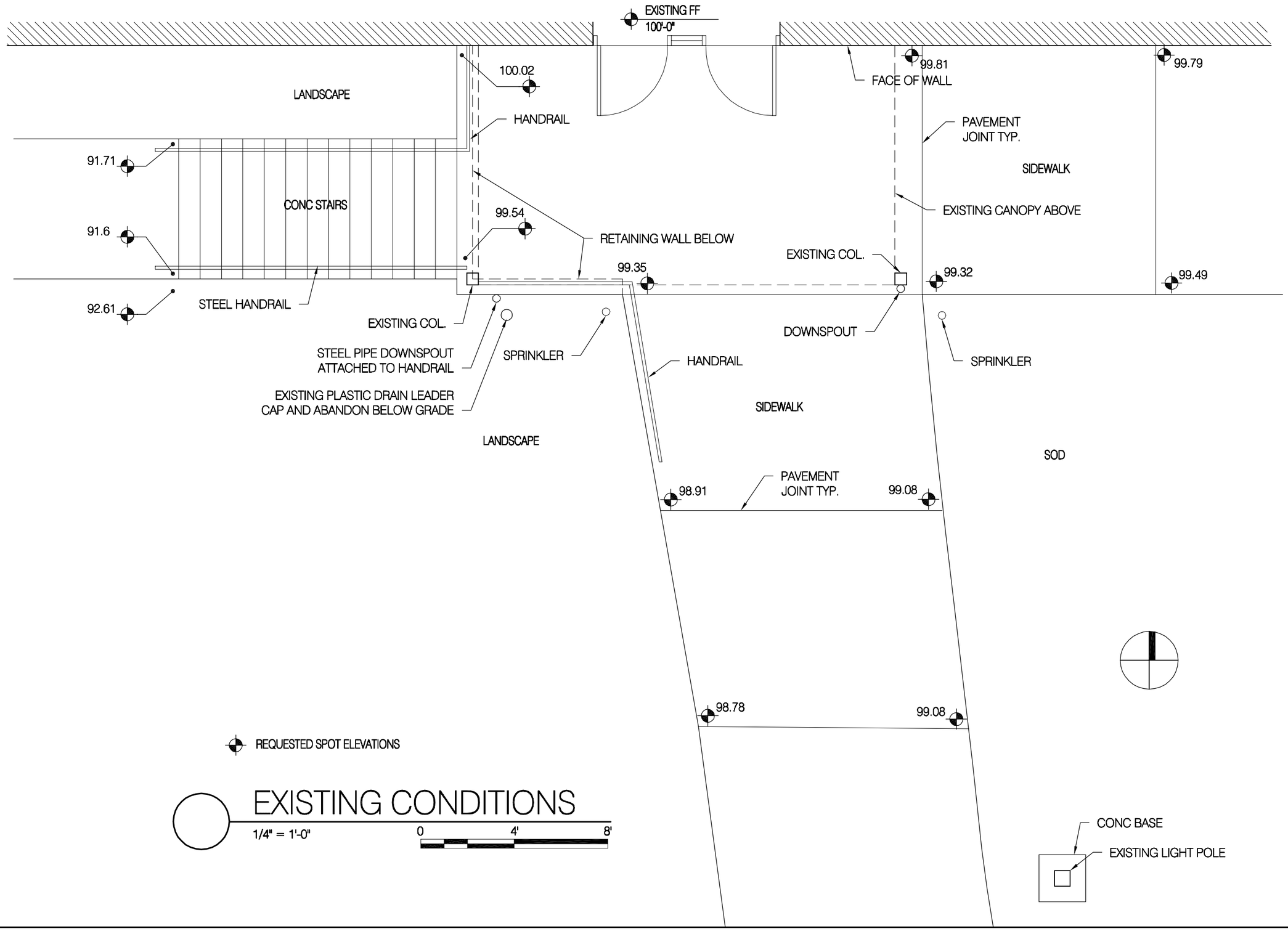
JOB NO.	05031
DATE	April 28th 2005
SCALE	NTS
SHEET NO.	A203



EXISTING CONDITIONS

1/4" = 1'-0"

0 4' 8'

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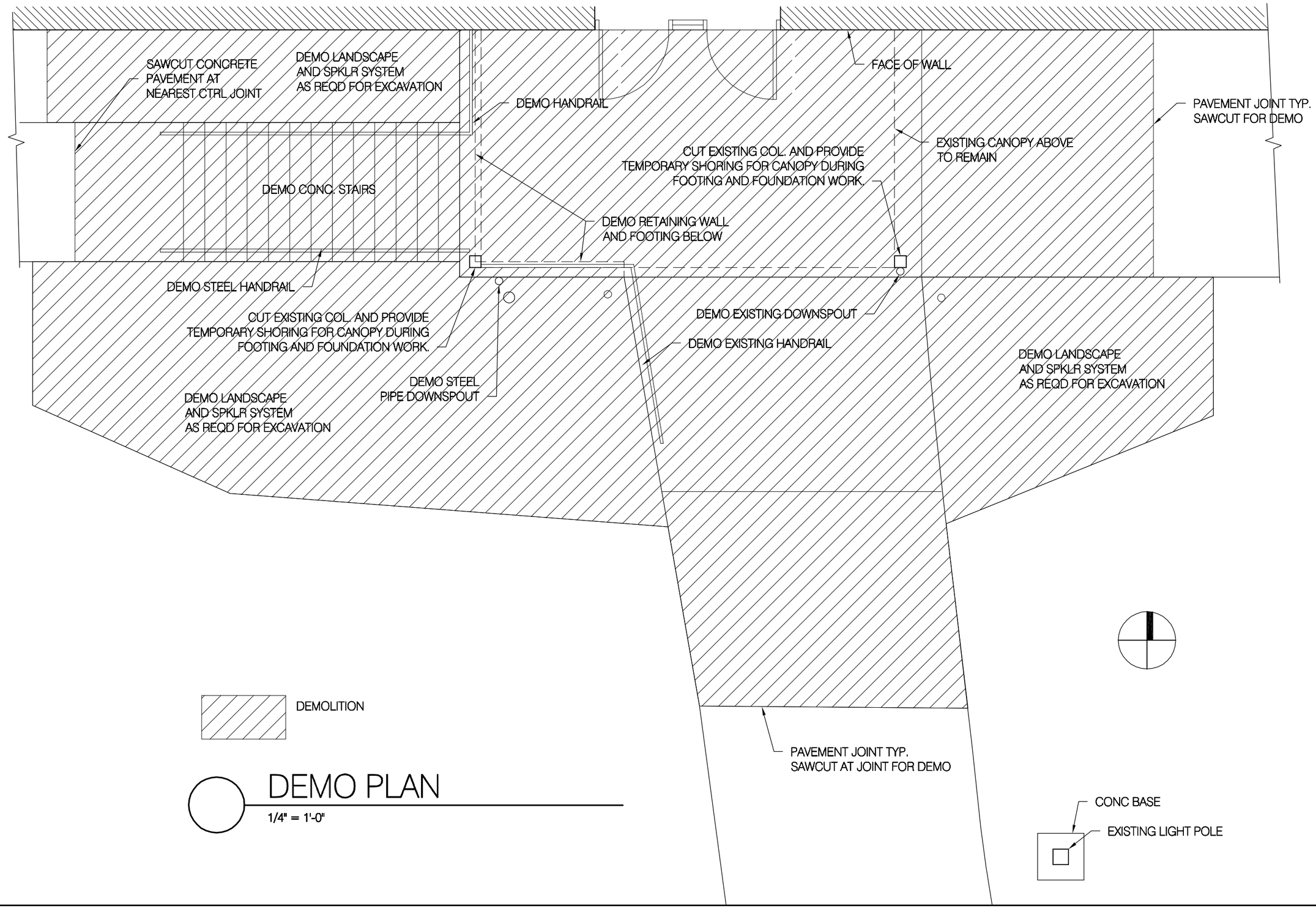
JOB NO. 05031
DATE April 28th 2005
SCALE 1/4" = 1'-0"
SHEET NO. A401



DEMO PLAN

1/4" = 1'-0"

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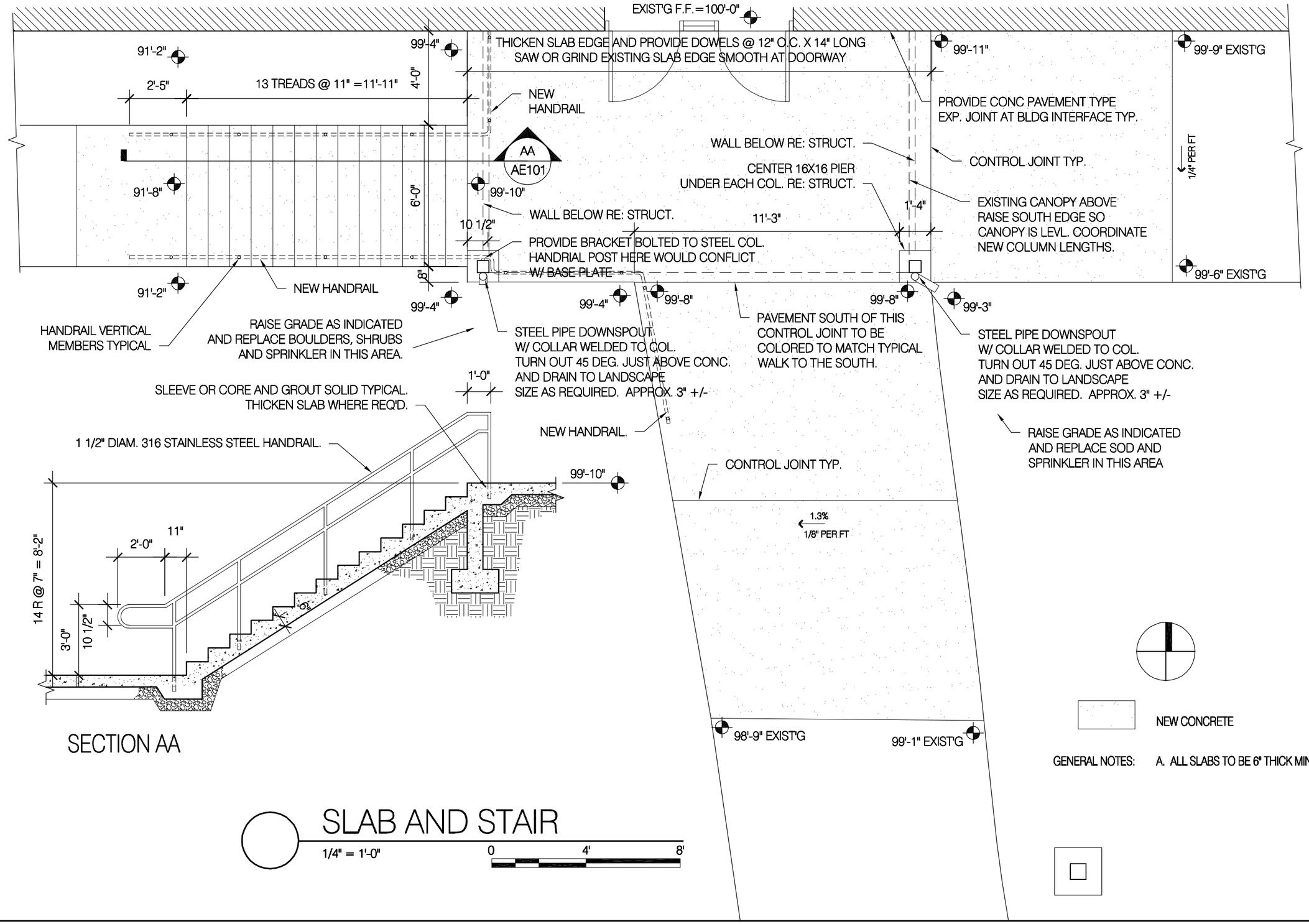
JOB NO. 05031
DATE April 28th 2005
SCALE 1/4" = 1'-0"
SHEET NO. A402



SECTION AA

SLAB AND STAIR

1/4" = 1'-0"

0 4' 8'

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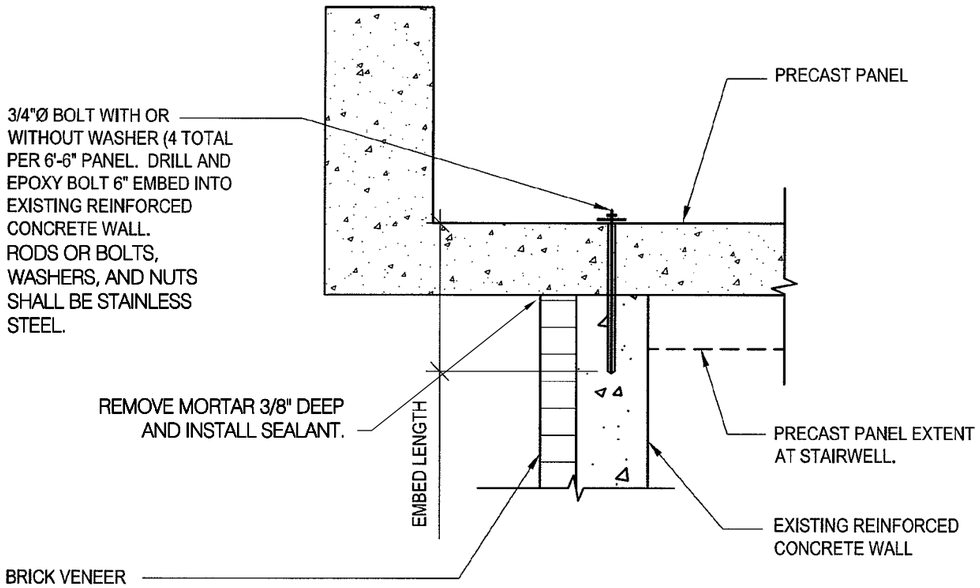
JOB NO. 05031
DATE April 28th 2005
SCALE 1/4" = 1'-0"
SHEET NO. A403

NOTE:
BOLTS/ALL-THREADS SHALL BE EVENLY SPACED VERTICALLY. NUMBER OF BOLTS SHALL BE EQUALLY SPLIT PER WALL/PRECAST INTERSECTION.

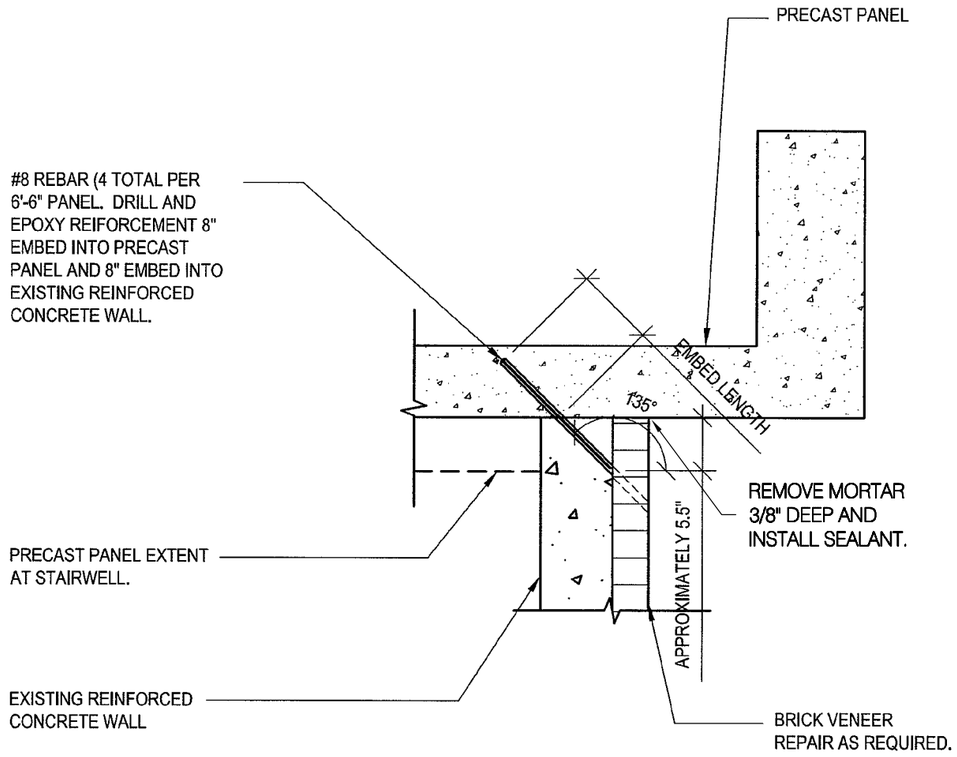


DETAIL #1

Precast Panel Attachment Detail- Alternate

NTS

NOTE:
REBAR SHALL BE EVENLY SPACED VERTICALLY. NUMBER OF BOLTS SHALL BE EQUALLY SPLIT PER WALL/PRECAST INTERSECTION.



DETAIL #2

Precast Panel Attachment Detail- Base Bid

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JOB NO. 05091
DATE April 29th 2005
SCALE NTS
SHEET NO. A501

STRUCTURAL GENERAL NOTES

BASIS OF DESIGN

1. GOVERNING BUILDING CODE..... 2003 IBC

2. LOAD COMBINATIONS:
   ALTERNATE ASD - GRAVITY AND LATERAL.... 1605.3.2

3. GRAVITY DESIGN:
   DEAD LOAD
   ROOF..... 15 PSF
   SNOW LOAD
   GROUND SNOW..... 43 PSF
   ROOF SNOW..... 40 PSF
   Is..... 1.1
   Ce..... 1.0
   Ct..... 1.2
   DRIFTING PER ASCE 7

4. SOILS:
   SOIL BEARING PRESSURE..... GOVERNED BY SETTLEMENT
   APPROXIMATELY 400 PSF
   LATERAL EARTH PRESSURE..... 45 PSF
   MINIMUM FROST COVER..... 30 INCHES

GENERAL

1. THE GENERAL CONTRACTOR SHALL:
   A. BECOME FAMILIAR WITH ALL PORTIONS OF THE CONTRACT DOCUMENTS AND INSURE THAT ALL SUBCONTRACTORS ARE FAMILIAR WITH THOSE PORTIONS PERTAINING TO THEIR AREA OF WORK. NO DEVIATIONS WILL BE ALLOWED UNLESS AGREED UPON BY ALL PARTIES IN WRITING PRIOR TO CONSTRUCTION OR FABRICATION.
   B. FIELD VERIFY ALL SITE CONDITIONS AND IMMEDIATELY NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER REGARDING ACTUAL CONDITIONS AT THE SITE WHICH ARE NOT PER THE DRAWINGS.
   C. COORDINATE ALL WORK BETWEEN THE VARIOUS TRADES AND SUBCONTRACTORS. REPORT ANY MODIFICATIONS TO THE STRUCTURAL PORTION OF THE BUILDING BY OTHER TRADES TO THE ARCHITECT AND STRUCTURAL ENGINEER.
   D. BE RESPONSIBLE FOR SAFETY AND PROTECTION IN AND AROUND THE JOB SITE AND/OR ADJACENT PROPERTIES.
   E. REPORT PROGRESS OF WORK TO ARCHITECT AND STRUCTURAL ENGINEER.

2. CONTRACT DOCUMENTS:
   A. REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE DRAWINGS.
   B. DETAILS, SECTIONS AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO ALL SIMILAR SITUATIONS ELSEWHERE, UNLESS NOTED OR SHOWN OTHERWISE.
   C. INFORMATION ON DRAWINGS INDICATING EXISTING CONDITIONS IS BASED ON BEST PRESENT KNOWLEDGE, BUT MAY NOT BE ENTIRELY ACCURATE AND MUST BE FIELD VERIFIED.

3. BUILDING CODE COMPLIANCE:
   A. INSPECTION, TESTING, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING BUILDING CODE AND STANDARDS. ASTM, IBC, AND OTHER DESIGNATIONS SHALL BE AS AMENDED TO LATEST DATE UNLESS NOTED OTHERWISE.

4. CONSTRUCTION SEQUENCE, SHORING, AND BRACING REQUIREMENTS:
   A. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE METHOD, MEANS, AND SEQUENCE OF ALL STRUCTURAL ERECTION EXCEPT WHEN SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. HE SHALL PROVIDE TEMPORARY SHORING AND BRACING AS HIS METHOD OF ERECTION REQUIRES TO PROVIDE ADEQUATE VERTICAL AND LATERAL SUPPORT DURING ERECTION. THIS SHORING AND BRACING SHALL REMAIN IN PLACE UNTIL ALL PERMANENT MEMBERS ARE PLACED AND ALL FINAL CONNECTIONS ARE COMPLETED, INCLUDING ALL ROOF AND FLOOR ATTACHMENTS.

5. OMISSIONS AND/OR CONFLICTS:
   A. OMISSIONS IN AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER AND SHALL BE RESOLVED BY THE SAME BEFORE PROCEEDING WITH ANY WORK INVOLVED.
   B. IN CASE OF CONFLICTS IN THE STRUCTURAL WORK, THE MOST STRINGENT REQUIREMENTS, AS DIRECTED BY THE ARCHITECT AND STRUCTURAL ENGINEER, SHALL BE IMPLEMENTED AT NO ADDITIONAL COST TO THE OWNER.

6. MISCELLANEOUS:
   A. DURING AND AFTER CONSTRUCTION, THE CONTRACTOR AND/OR OWNER SHALL KEEP THE LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN.
   B. OBSERVATION VISITS TO THE SITE BY REPRESENTATIVES OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER SHALL NOT BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.

7. SUBMITTALS:
   A. THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION, ERECTION, INSTALLATION, OR OTHERWISE BEING INCORPORATED INTO THE WORK.
   MATERIALS CERTIFICATION FOR ALL CONCRETE MATERIALS.
   MIX DESIGNS FOR EACH TYPE OF CONCRETE.
   REINFORCING STEEL SHOP DRAWINGS.
   STRUCTURAL STEEL SHOP DRAWINGS.
   WELDING PROCEDURES AND CERTIFICATIONS.
   B. A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE REVIEW OF ALL SUBMITTALS BY THE ARCHITECT AND STRUCTURAL ENGINEER.
   C. REQUESTS FOR SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER IN WRITING. SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED IN WRITING BY THE ARCHITECT AND STRUCTURAL ENGINEER.

QUALITY ASSURANCE PLAN FOR STRUCTURE

1. INSPECTION:
   A. THE OWNER SHALL PROVIDE SPECIAL INSPECTION BY QUALIFIED INSPECTORS FOR THE FOLLOWING TYPES OF CONSTRUCTION IN ACCORDANCE WITH IBC, SECTION 1704 AND 1707 AND THE SPECIFICATIONS.
   SOILS: THE BOTTOM OF EXCAVATIONS AND PLACEMENT OF STRUCTURAL FILL.
   CONCRETE: DURING THE CASTING OF ALL CONCRETE AND TAKING OF ALL TEST SPECIMENS, AND SHALL VERIFY THE PLACEMENT OF ALL REINFORCING. INSPECTOR SHALL BE ACI-II OR ICBO CERTIFIED.
   BOLTING: ALL HIGH STRENGTH BOLTS AND BOLTS EMBEDDED IN CONCRETE AND/OR EPOXY.
   WELDING: ALL SHOP AND FIELD WELDS. INSPECTOR SHALL BE AWS-QC1 CERTIFIED.

2. TESTING:
   A. THE OWNER SHALL PROVIDE TESTING BY QUALIFIED TESTING AGENCIES FOR THE FOLLOWING TYPES OF CONSTRUCTION IN ACCORDANCE WITH IBC, SECTION 1708 AND THE SPECIFICATIONS.
   SOILS: COMPACTION OF STRUCTURAL FILL.
   CONCRETE: STRENGTH, SLUMP, AIR, AND TEMPERATURE.
   WELDING: TYPE, SIZE, LENGTH, AND QUALITY OF ALL SHOP AND FIELD WELDS BY APPROVED METHODS. ULTRASONICALLY TEST ALL COMPLETE PENETRATION WELDS.

3. STRUCTURAL OBSERVATIONS:
   A. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED TO PERFORM STRUCTURAL OBSERVATIONS AT SIGNIFICANT STAGES DURING CONSTRUCTION.
   B. THE STRUCTURAL ENGINEER SHALL PROVIDE A COPY OF THE OBSERVATION REPORT TO THE ARCHITECT FOR FURTHER DISTRIBUTION.
4. THE CONTRACTOR SHALL:
   A. SUBMIT A STATEMENT OF RESPONSIBILITY TO THE OWNER AND BUILDING OFFICIAL PRIOR TO COMMENCING WORK ON STRUCTURE THAT INCLUDES AWARENESS OF THE QUALITY ASSURANCE PLAN REQUIREMENTS, ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE TO CONSTRUCTION DOCUMENTS, PROCEDURES FOR EXERCISING CONTROL, METHOD AND FREQUENCY OF REPORTING, AND IDENTIFICATION AND QUALIFICATIONS OF PERSONNEL IN CHARGE OF CONTROL.
   B. CORRECT ALL WORK FOUND TO BE DEFICIENT AT NO ADDITIONAL COST TO THE OWNER.

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S-001

C. COORDINATE ALL THE REQUIRED INSPECTIONS, TESTING, AND/OR STRUCTURAL OBSERVATIONS OF THE QUALITY ASSURANCE PLAN. DO NOT PROCEED WITH SUBSEQUENT WORK UNTIL THE REQUIRED INSPECTIONS, TESTING, AND STRUCTURAL OBSERVATIONS HAVE BEEN PROVIDED. NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER AT LEAST 48 HOURS PRIOR TO ANY REQUIRED OBSERVATIONS.

D. PROVIDE COPIES OF THE DAILY INSPECTION REPORTS AND ALL TESTING RESULTS TO THE ARCHITECT, STRUCTURAL ENGINEER, OWNER, AND BUILDING OFFICIAL.

SITE PREPARATION

1. SOILS REPORT:

A. THESE SITE PREPARATION NOTES ARE BASED ON RECOMMENDATIONS CONTAINED IN A SOILS REPORT BY BINGHAM ENGINEERING, DATED MARCH 2005 AND ANY ADDENDA THERETO. A REFERENCE COPY OF THIS REPORT SHALL BE OBTAINED BY THE CONTRACTOR AND IS AVAILABLE FROM THE OWNER UPON REQUEST. THE SOILS REPORT IS NOT A PART OF THE STRUCTURAL CONTRACT DOCUMENTS.

B. IF SOIL CONDITIONS VARY FROM THE SOILS REPORT, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ARCHITECT AND THE STRUCTURAL ENGINEER. FOOTINGS AND FOUNDATIONS AS SHOWN ON THE DRAWINGS MAY NEED TO BE REVISED.

CONCRETE

1. CODES AND STANDARDS:

A. CONCRETE CONSTRUCTION, WORKMANSHIP, AND MATERIALS SHALL COMPLY WITH THE AMERICAN CONCRETE INSTITUTE (ACI) EDITIONS OF:

I. ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".

II. ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", EXCEPT AS MODIFIED BY THE IBC.

III. ACI 347, "RECOMMENDED PRACTICE FOR CONCRETE FORM WORK".

2. MATERIALS:

A. CEMENT SHALL CONFORM TO ASTM C150, TYPE II, (L.A.), PORTLAND CEMENT.

B. HARD ROCK AGGREGATES SHALL CONFORM TO ASTM C33. LIGHTWEIGHT AGGREGATES SHALL CONFORM TO ASTM C330.

C. WATER SHALL BE POTABLE.

D. AIR ENTRAINMENT SHALL CONFORM TO ASTM C260.

E. FLY ASH SHALL NOT BE USED.

F. CALCIUM CHLORIDE SHALL NOT BE USED.

G. EPOXY SHALL CONFORM TO ASTM C881, TYPES I, II, IV, AND V, GRADE 3, CLASSES B AND C.

3. MIX DESIGNS:

A. ONLY ONE TYPE OF CONCRETE SHALL BE PLACED AT THE SITE AT ANY GIVEN TIME.

B. A MIX DESIGN THAT PRODUCES THE LOWEST SLUMP COMPATIBLE WITH PROPER PLACEMENT SHALL BE USED, 4" MAXIMUM.

C. CONCRETE MIXES SHALL CONFORM TO THE FOLLOWING:

TYPE OF CONCRETE MEMBER	MINIMUM STRENGTH AT 28 DAYS (PSI)	MAX. W/C (RATIO)	DRY WEIGHT (PCF)	MAX. AGGREGATE SIZE (INCHES)	AIR ENTRAIN-MENT (%)	MIN. CEMENT PER YD. (LBS)
FOOTINGS:	4000	0.45	145	3/4	3 +/- 1	564
FOUNDATION WALLS AND GRADE BEAMS:	4000	0.45	145	3/4	3 +/- 1	564
SLABS ON GRADE:						
EXTERIOR	4500	0.42	145	3/4	3 +/- 1	611
WALLS:	4000	0.45	145	3/4	3 +/- 1	564

D. PEA GRAVEL AGGREGATE AND/OR PLASTICIZER MAY BE USED IN CONGESTED AREAS WHEN REQUIRED TO PROPERLY FILL ALL VOIDS AND/OR FOR WORKABILITY. (CONTRACTOR'S OPTION).

4. CONSTRUCTION:

A. CONCRETE SHALL BE PROPERLY VIBRATED DURING PLACEMENT.

B. PRIOR TO PLACING CONCRETE, CHECK WITH ALL TRADES TO INSURE PROPER PLACEMENT OF OPENINGS, BLOCK OUTS, SLEEVES, CURBS, CONDUITS, BOLTS, ETC. ANCHOR BOLTS SHALL BE PLACED PRIOR TO CASTING CONCRETE.

C. CONSTRUCTION JOINTS AND BULKHEADS SHALL BE FORMED WITH A KEY WAY. ALL CONTACT SURFACES, NEW OR EXISTING, AT CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHENED PRIOR TO CASTING ADJACENT POUR.

D. ALL BOLT HOLES TO BE FILLED WITH EPOXY SHALL BE WIRE BRUSHED AND CLEANED WITH COMPRESSED AIR. FOLLOW MANUFACTURERS RECOMMENDATIONS.

5. FOOTINGS:

A. FOOTINGS SHALL BEAR ON PROPERLY PREPARED MATERIAL. SEE THE SITE PREPARATION NOTES.

B. FOOTINGS SHALL BE CENTERED BELOW THE WALL AND/OR COLUMN ABOVE, TYPICAL UNLESS NOTED OTHERWISE.

C. EXTERIOR FOOTINGS SHALL BEAR BELOW THE EFFECTS OF FROST.

D. PROVIDE A 2X4 BEVELED KEY WAY IN ALL CONTINUOUS WALL FOOTINGS.

E. STAGGER FOOTING CONSTRUCTION JOINTS FROM WALL CONSTRUCTION JOINTS ABOVE BY AT LEAST 6 FEET.

F. REINFORCING IN CONTINUOUS FOOTINGS SHALL BE CONTINUOUS AT CORNERS AND/OR INTERSECTIONS BY PROVIDING PROPER LAP LENGTHS AND/OR CORNER BARS.

G. BEARING SURFACES FOR FOOTINGS WHICH ARE, OR BECOME, UNDERMINED DURING CONSTRUCTION SHALL BE BACKFILLED WITH A LEAN-MIX CONCRETE (2000 PSI MIN.).

6. SLABS ON GRADE:

A. EXTERIOR SLABS ON GRADE SHALL BE A MINIMUM OF 4 INCHES THICK, SHALL BEAR ON A 4 INCH MINIMUM LAYER OF FREE-DRAINING GRAVEL, AND SHALL BE REINFORCED WITH #4 BARS AT 24" O.C. BOTH WAYS, TYPICAL UNLESS NOTED OTHERWISE. PROVIDE CHAIRS WITH SAND PLATES FOR PROPER PLACEMENT.

7. WALLS:

A. CONCRETE WALLS SHALL BE REINFORCED AS FOLLOWS, UNLESS NOTED OTHERWISE:

WALL THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
8"	#4 @ 18" O.C.	#4 @ 12" O.C.

SEE PLANS, SCHEDULES, AND DETAILS FOR OTHER REINFORCING REQUIREMENTS.

B. PLACE VERTICAL REINFORCING IN THE CENTER OF THE WALL (EXCEPT FOR BASEMENT WALLS, RETAINING WALLS, OR WHEN EACH FACE IS SPECIFIED).

C. VERTICAL REINFORCING SHALL BE DOWELED TO CONCRETE FOOTING OR STRUCTURE BELOW AND TO STRUCTURE ABOVE WITH THE SAME SIZE BAR AND SPACING, TYPICAL, UNLESS NOTED OTHERWISE.

D. PROVIDE CORNER BARS AT ALL INTERSECTIONS AND CORNERS. USE SAME SIZE BAR AND SPACING AS THE HORIZONTAL REINFORCING.

E. HORIZONTAL REINFORCING SHALL TERMINATE AT THE ENDS OF WALLS AND AT OPENINGS WITH A STANDARD HOOK.

F. PROVIDE DRAINAGE AT THE BASE OF RETAINING WALLS AND AT THE BASE OF ALL BASEMENT WALLS.

REINFORCING STEEL

1. CODES AND STANDARDS:

A. REINFORCING STEEL SHALL COMPLY WITH:

I. CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".

II. AMERICAN CONCRETE INSTITUTE "DETAILING MANUAL", ACI 315 (OR SP-66).

2. MATERIALS:

A. REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS AND SHALL CONFORM TO ASTM A615, GRADE 60, WITH A DESIGN YIELD STRENGTH OF 60,000 PSI, EXCEPT AS NOTED BELOW.

I. DOWELS TO BE BENT IN THE FIELD DURING CONSTRUCTION SHALL BE ASTM A615, GRADE 40 OR ASTM A706, GRADE 60, "LOW-ALLOY STEEL".

II. REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60, "LOW-ALLOY STEEL".

3. CONSTRUCTION:

A. REINFORCING SHALL BE DETAILED, BOLSTERED, AND SUPPORTED PER ACI 315.

B. REINFORCING STEEL SHALL BE FREE OF LOOSE FLAKY RUST, SCALE, GREASE, OIL, DIRT, AND OTHER MATERIALS WHICH MIGHT AFFECT OR IMPAIR BOND.

C. REINFORCING SHALL BE CONTINUOUS IN WALLS, BEAMS, COLUMNS, SLABS, FOOTINGS, ETC.

D. SPLICES IN CONTINUOUS REINFORCING SHALL BE MADE IN AREAS OF COMPRESSION AND/OR AT POINTS OF MINIMUM STRESS, TYPICAL UNLESS NOTED OTHERWISE. LAP SPLICES SHALL BE MINIMUM OF 40 BAR DIAMETERS UNLESS NOTED OTHERWISE. MINIMUM LAP SHALL BE 24 INCHES LONG. DOWELS SHALL HAVE A MINIMUM OF 30 BAR DIAMETERS EMBEDMENT. TENSION SPICES SHALL BE USED IN CONCRETE WHEN SPECIFICALLY NOTED, USE A CLASS B SPLICE.

E. BENDS SHALL BE MADE COLD. DO NOT USE HEAT. BENDS SHALL BE DONE IN THE FABRICATOR'S SHOP UNLESS SPECIFICALLY NOTED FOR THE FIELD. DO NOT UN-BEND OR RE-BEND A PREVIOUSLY BENT BAR.

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S-002

F. REINFORCING STEEL IN CONCRETE SHALL BE SECURELY ANCHORED AND TIED IN PLACE PRIOR TO PLACING CONCRETE AND SHALL BE POSITIONED WITH THE FOLLOWING MINIMUM CONCRETE COVER:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"

CONCRETE EXPOSED TO EARTH OR WEATHER:

#6 AND LARGER..... 2"

#5 AND SMALLER..... 1-1/2"

CONCRETE NOT EXPOSED TO EARTH OR WEATHER:

SLABS AND WALLS, #11 AND SMALLER..... 3/4"

BEAMS AND COLUMNS, MAIN REINFORCING OR TIES... 1-1/2"

SLABS ON GRADE..... CENTER OF SLAB

G. NO REINFORCING SHALL BE WELDED UNLESS SPECIFICALLY NOTED AS SUCH. USE E90XX ELECTRODES AND ASTM A706 REINFORCING. COMPLY WITH AWS D1.4 REQUIREMENTS.

H. EPOXY COATED REINFORCING BARS SHALL BE USED FOR ALL EXTERIOR SLABS ON GRADE. INCREASE LAP SPLICE LENGTHS AS REQUIRED BY THE IBC AND ACI.

STRUCTURAL STEEL

1. CODES AND STANDARDS:

A. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL COMPLY WITH:

I. THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN (AISC-ASD)', WITH 'COMMENTARY'.

II. THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 'LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC-LRFD)', WITH 'COMMENTARY'.

III. AISC 'CODE OF STANDARD PRACTICE' EXCLUDING SECTIONS 1.5.1, 3.3(1ST SENTENCE), 4.2, 7.5.4, AND 7.11.5.

IV. AMERICAN WELDING SOCIETY (AWS-D1.1) 'STRUCTURAL WELDING CODE - STEEL', EXCLUDING ITEMS CONFLICTING WITH AISC REQUIREMENTS.

2. MATERIALS:

A. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE B, WITH A MINIMUM YIELD STRENGTH Fy = 46 KSI.

3. CONSTRUCTION:

A. FABRICATION SHALL BE DONE IN AN APPROVED FABRICATOR'S SHOP.

B. PROVIDE A SHOP COAT OF PAINT ON ALL STEEL ITEMS, EXCEPT AT AREAS OF WELDING AND/OR BOLTING.

C. USE HIGH STRENGTH (8000 PSI MINIMUM AT 28 DAY), NON-SHRINK, LIQUID EPOXY GROUT BENEATH ALL STEEL BASE PLATES AND BEARING PLATES. MIX GROUT WITH SAND OR PEA GRAVEL AS RECOMMENDED BY THE MANUFACTURER. PLACE GROUT AS SOON AS STEEL MEMBER HAS BEEN PROPERLY POSITIONED AND ALIGNED.

4. WELDED CONNECTIONS:

A. WELDING AND GAS CUTTING SHALL BE DONE PER AWS.

B. WELDERS SHALL BE CURRENTLY CERTIFIED ACCORDING TO AWS WITHIN THE LAST 12 MONTHS. ALL WELDING PROCEDURES SHALL BE PRE-QUALIFIED. WELDERS SHALL FOLLOW WELDING PROCEDURES.

C. WELDED CONNECTIONS SHALL BE MADE USING LOW HYDROGEN MATCHING FILLER MATERIAL ELECTRODES, UNLESS NOTED OTHERWISE.

D. WELDS SHALL HAVE THE SLAG REMOVED.

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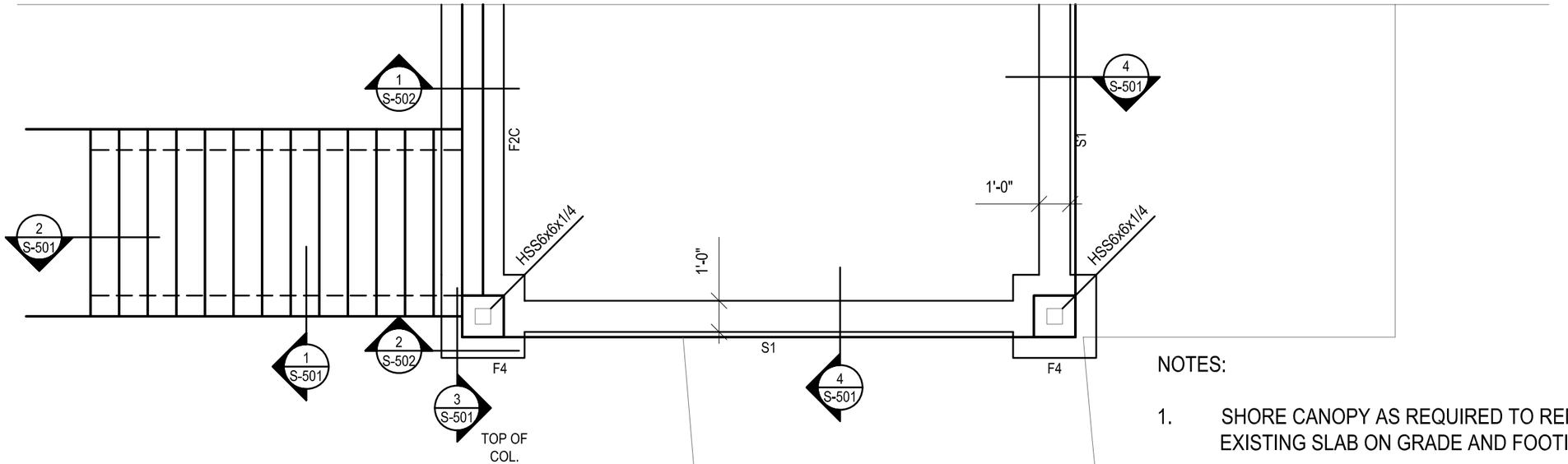
S-003

EXISTING BUILDING



NOTES:

1. SHORE CANOPY AS REQUIRED TO REMOVE THE EXISTING SLAB ON GRADE AND FOOTINGS.

2. RAISE EXISTING CANOPY PER ARCHITECTURAL REQUIREMENTS.

3. REMOVE EXISTING EXTERIOR STEEL COLUMNS. CUT AND GRIND SMOOTH. ATTACH NEW COLUMNS PER DETAIL 3/S-101 AND 4/S-101.

4. NEW 5" CONCRETE SLAB ON GRADE WITH #4 @ 24"O.C. EACH WAY ON TOP OF 2'-0" OF NON-FROST-SENSITIVE GRAVEL. REINFORCE SLAB FROM EXISTING BUILDING TO OUTER EDGES OF NEW CONCRETE PIERS. SIDEWALKS BEYOND SHALL BE AS PER ARCHITECT.

5. DOWEL NEW FOOTING, WALLS, AND STRUTS TO EXISTING. MATCH HORIZONTAL REINFORCING SIZE AND SPACING. EMBED. 6" MIN. IN EPOXY.

6. HANDRAILS TO BE AS PER ARCHITECTURAL DRAWINGS.

7. SEE S-102 FOR FOOTING SCHEDULE.

North

FOOTING AND FOUNDATION PLAN

SCALE : 1/4" = 1'-0"

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S-101

FOOTING SCHEDULE

MARK	SIZE			BOTTOM REINF.	TOP REINF.	NOTES
	WIDTH	LENGTH	THICK.			
F-4	4'-0"	4'-0"	12"	(5) #5 E.W.	.	
F-2C	2'-0"	CONT.	12"	(2) #5 L.W.		
S1	12"	CONT.	12"	(2) #5 L.W.	(2) #5 L.W.	#3 TIES @ 8"O.C.

C.W. = CROSSWISE E.W. = EACH WAY L.W. = LENGTHWISE

1. ALL FOOTINGS SHALL BEAR ON PROPERLY PREPARED MATERIAL. SEE THE SITE PREPARATION NOTES.
2. ALL FOOTINGS SHALL BE CENTERED BELOW THE WALL AND/OR COLUMN ABOVE, TYPICAL U.N.O.
3. ALL EXTERIOR FOOTINGS SHALL BEAR BELOW THE EFFECTS OF FROST.
4. PROVIDE A 2X4 BEVELED KEY WAY IN ALL CONTINUOUS WALL FOOTINGS.
5. PROVIDE DOWELS WITH STANDARD HOOKS FROM FOOTINGS TO ANY REINFORCED ELEMENT ABOVE WITH SIZE AND SPACING TO MATCH VERTICAL REINFORCING IN ELEMENT ABOVE.
6. PROVIDE MINIMUM COVER FOR ALL REINFORCING PER THE GENERAL NOTES.
7. ANY INCREASE IN THE SIZE OF FOOTINGS SHOWN MAY REQUIRE ADDITIONAL REINFORCING. COORDINATE WITH THE ARCHITECT AND STRUCTURAL ENGINEER.
8. PENETRATIONS THROUGH FOOTINGS ARE NOT ALLOWED.
9. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

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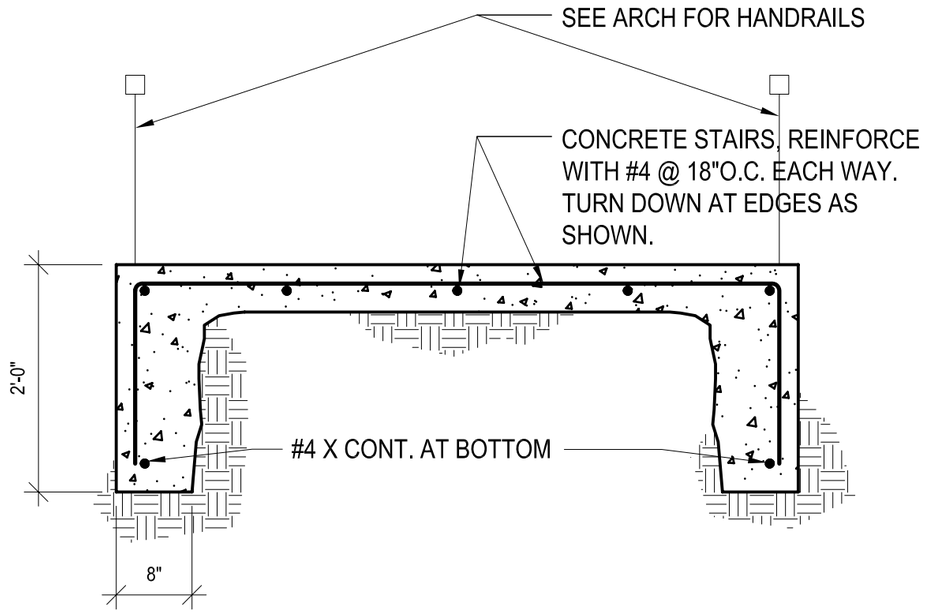
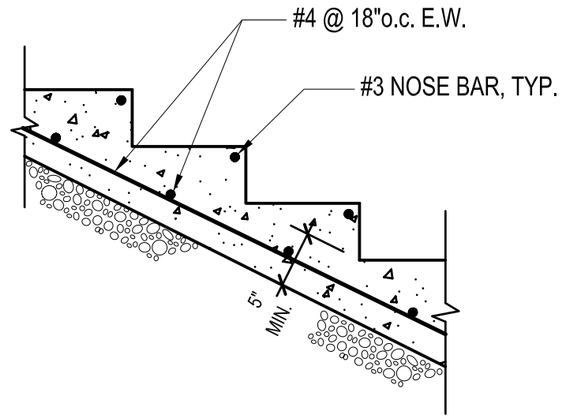
S-102



1 S-501 NO SCALE



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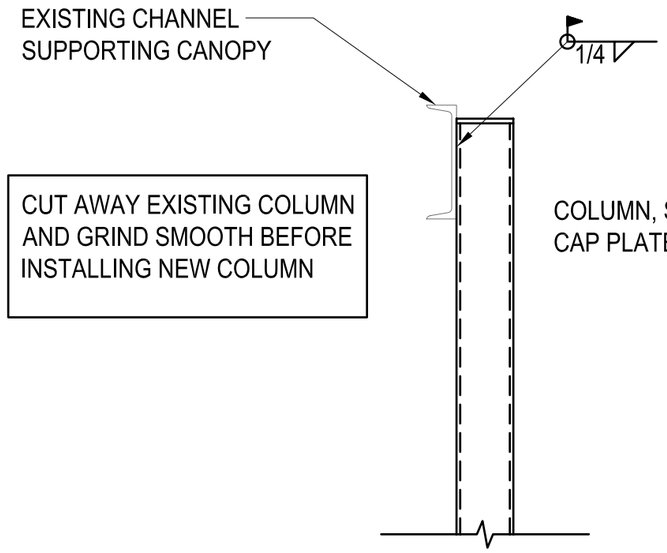

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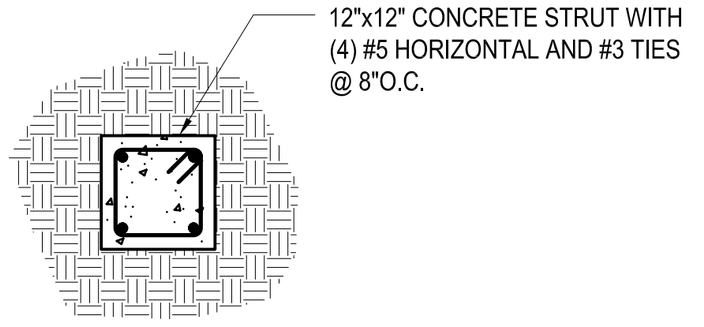

5 S-501 NO SCALE

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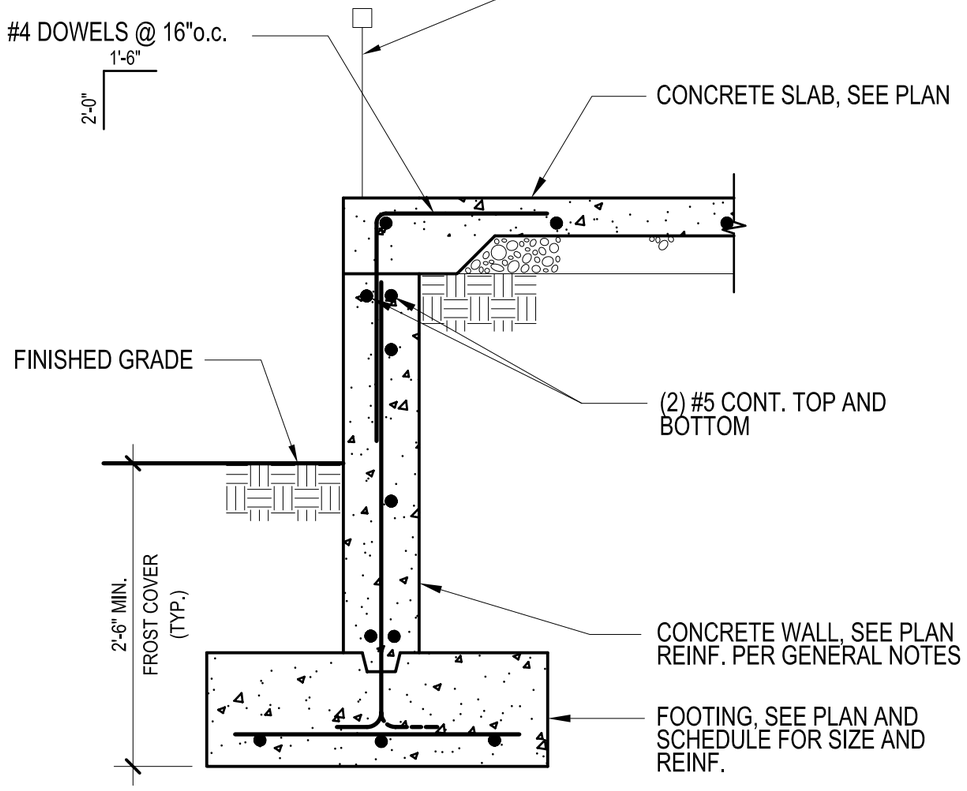
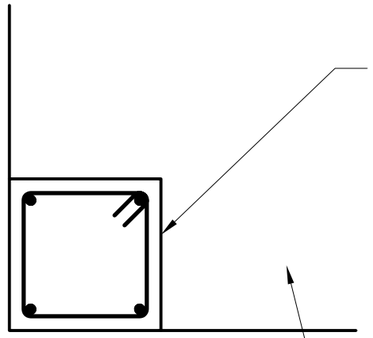
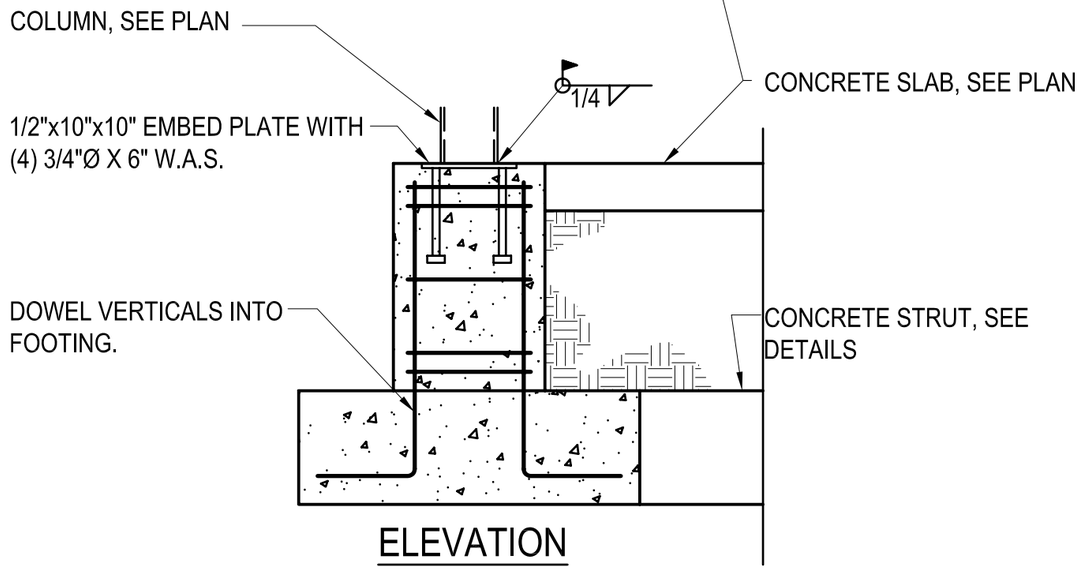


1 S-502 NO SCALE

COLUMN AND EMBED NOT SHOWN IN PLAN.



PLAN



ELEVATION

2 S-502 NO SCALE

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